

SEAT No. _____

No. of Printed Pages : 2

[10/A-13]

SARDAR PATEL UNIVERSITY
B.Sc. -4th Semester Examination 2018
10th April, Tuesday
10:00A.M. to 1:00 P.M.
Subject Code: US04CBCH01
(Biochemistry of Bio molecules II)

Total Marks: 70

Q1. Choose the correct option and write it in the answer sheet

[10]

- The primary structure of protein represents.
a) Linear sequence of amino acids b) 3-dimensional structure c) Helical structure d) none of these
- Which amino acid can form disulphide bonds?
a) Glycine b) Lysine c) Cysteine d) Glutamate
- The most common secondary structure is
a) α -Helical b) β -pleated sheet c) β -pleated parallel d) β -pleated nonparallel
- All are non essential fatty acids except.
a) Oleic acid b) Linolenic acid c) Palmitic d) stearic acid
- What monomers make up protein?
a) Monosaccharide b) Fatty acid c) Amino acid d) Ascorbic acid
- Physical state of fat at room temperature is
a) Solid b) Gas c) liquid d) plasma
- The type of sugar in DNA is
a) Triose b) Tetrose c) Pentose d) None of these
- Which base is absent in DNA?
a) Cytosine b) Uracil c) Adenine d) All of these
- Enzymes are
a) DNA b) Carbohydrates c) Fats d) Proteins
- The Co-enzymes is
a) Always inorganic b) Often Metal c) often vitamin d) always protein

Q2. Answer the followings in short (any ten)

[20]

- What are various heavy metals and alkaloids which precipitates proteins?
- Define Conjugated proteins with examples.
- What is peptide bond? Define polypeptide.
- What are simple lipids? Give examples.
- Define saturated and unsaturated fatty acids.
- What are MUFA and PUFA?
- Define essential fatty acids with examples.
- What are Nucleotides and Nucleosides?
- Explain in brief Nucleotides are the building blocks of Nucleic acids.
- Draw the structures of pentose sugars occurring in DNA and RNA.
- Define Coenzyme, Cofactor, Catalytic site and Substrate.
- Enzymes lower activation energy -justify.

(1)

[PTO]

Q3. A) Define and Classify proteins with suitable examples [05]
B) Explain, protein structure is stabilised by covalent and non covalent bonds. [05]

OR

Q3. A) Discuss about precipitation of proteins. [05]
B) Write notes on structure of Haemoglobin. [05]

Q4. A) Define phospholipid, Glycolipid and add a note on Lipoproteins. [06]
B) Write notes on structure and importance of Cholesterol. [04]

OR

Q4. A) Classify Fatty acids in various ways with suitable examples. [04]
B) Discuss importance of Lipids and write notes on Waxes. [06]

Q5. Explain the Watson and Crick model of DNA and add a note on various forms of DNA. [10]

OR

Q5. A) Write notes on types of RNA. [05]
B) Discuss about various types of Plasmids. [05]

Q6. Discuss in detail about IUBMB classification of Enzymes with suitable examples. [10]

OR

Q6. Discuss about Factors affecting enzyme activity and write notes on enzyme specificity. [10]

